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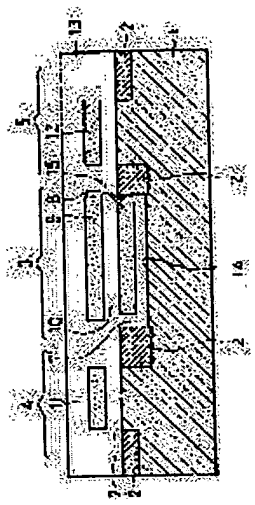
(54) SEMICONDUCTOR INTEGRATED CIRCUIT

(57)Abstract:

PURPOSE: To improve flatness of the upper surface of a substrate, and prevent disconnection of a metal wiring formed on an interlayer insulating film, by burying the bottom part of a floating gate electrode in a trench formed on the surface of an integrated circuit board.

CONSTITUTION: A trench 14 is formed between two source.drain regions of an information storage transistor 3 on the element region surface of an integrated circuit board. A gate insulating film 7' is formed also on the inner wall of the trench 14, and at least the bottom part of the floating gate electrode 8 is buried in the inside of the trench 14, via the gate insulating film 7'. A thin tunnel film 15 is formed between a part of the side surface of the floating gate electrode 8 and a part of the inner side surface of the trench 14. Since, in this manner, at least the bottom part of the floating gate electrode 8 is buried in the trench 14 formed on a part of the integrated circuit board surface, the level difference on the substrate upper surface is reduced, and the flatness of the substrate upper surface is improved.



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